CLAIMS

What is claimed is:

1. A method for reducing -the temperature of all or a portion of the body of a mammalian patient to a temperature at which the patient would exhibit a shivering response, said method comprising the steps of: (a) sensing the temperature of all or a portion of the patient's body; (b) generating a signal based upon said sensed temperature; (c) controlling the temperature of all or a portion of the patient's body based upon said signal; and (d) administering a therapeutically effective amount of a pharmaceutically acceptable preparation of an agent selected from the group consisting of;

α2-adrenoreceptor agonists,

non-opiod analgesic monoamine uptake inhibitors,

neuropeptides,

nefopam, and

anticonvulsant agents.

2A. A method as in claim 1 further comprising the step of (e) placing a warming blanket on the surface of said patient.

2. A method according to Claim 1 wherein the agent administered in Step D comprises an α2-adrenoreceptor agonist selected from the group consisting of dexmedetomidine; detomidine; medetomidine; clonidine; bromonidine; tizanidine; mivazerol; guanfacine; oxymetazonline; (R)-(-)-3'-(2-amino-1-hydroxyethyl)-4'-fluoro-methanesulfoanilide; 2-[(5-methylbenz-1-ox-4-azin-6-yl)imino]imidazoline; 5-bromo-N-(4,5-dihydro-1H-imidazol-2-yl)-6-quinoxalinamine; 5,6,7,8-tetrahydro-6-(2-propenyl)-4H-thiazolo[4,5-d]azepin-2-amine; 6-ethyl-5,6,7,8-tetrahydro-4H-oxaazolo[4,5-d]azepin-2-amine; 5,6-dihydroxyl-1,2,3,4-tetrahydro-1-naphyl-imidazoline; and pharmaceutically acceptable salts thereof.

3. A method according to Claim 2 wherein the α2-adrenoreceptor agonist is selected from the group consisting of dexmedetomidine and pharmaceutically acceptable salts of dexmedetomidine.

4. A method according to Claim 1 wherein the agent administered in Step D comprises a a non-opiod analgesic monoamine uptake inhibitor selected from the group consisting of nefopam; tramadol; and pharmaceutically acceptable salts thereof.

5. A method according to Claim 4 wherein the non-opiod analgesic monoamine uptake inhibitor is selected from the group consisting of nefopam and a pharmaceutically acceptable salts of nefopam.

6. A method according to Claim 1 wherein the agent administered in Step D comprises a neuropeptide selected from the group consisting of neurotensin; neurotensin analogs; bombesin; neuromedin; dermorphin; D-ala-deltorphin; and pharmaceutically acceptable variants thereof.

7. A method according to Claim 6 wherein the neuropeptide is selected from the group consisting of neurotensin and pharmaceutically acceptable variants of neurotensin .

8. A method according to Claim 1 wherein the agent administered in Step D comprises an anticonvulsant agent.

9. A method according to Claim 8 wherein the anticonvulsant agent is selected from the group consisting of:

hydantoins;

anticonvulsant barbiturates;

deoxybarbiturates;

iminostilbenes;

succinimides;

oxazolidinediones;

benzodiazepines;

acetylureas;

sulfonamides;

carbonic anhydrase inhibitors;

gabapetin;

lamotrigine;

primidone;

valproate;

pro-drugs or metabolic precursors of any such antoconvulsant agents; and,

possible combinations thereof.

10. A method according to Claim 9 wherein the hydantoins comprise phenytoin.

11. A method according to Claim 9 wherein the anticonvulsant barbiturates compromise Phenobarbital.

12. A method according to Claim 9 wherein the deoxybarbiturates comprise primidone.

13. A method according to Claim 9 wherein the iminostilbenes comprise carbamazepine.

14. A method according to Claim 9 wherein the succinimides comprise ethosuximide, methsuximide and phensuximide.

15. A method according to Claim 9 wherein the oxazolidinediones comprise trimethadione and paramethadione.

16. A method according to Claim 9 wherein the benzodiazepines comprise diazepam, chlordiazeppoxide, oxazepam, chlorazepate, nitrazepam, clonazepam and lorazepam.

17. A method according to Claim 9 wherein the acetylureas comprise phenacemide and pheneturide.

18. A method according to Claim 9 wherein the sulfonamides and carbonic anhydrase inhibitors comprise acetazolamide, sulthiame and bromide.

19. A method according to Claim 9 wherein the anticonvulsant agent comprises a metabolic precursor of phentoin.

20. A method according to Claim 19 wherein the metabolic precursor of phentoin comprises fosphenytoin.

21 A method according to Claim 20 wherein fosphenytoin is aministered in two doses, 15 minutes apart.

22. A method according to Claim 21 wherein each dose contains approximately 20 mgof fosphenytoin per kg of body weight.

23. A method according to Claim 20 wherein fosphenytoin is administered intravenously at an approximate rate of 150 mgper minute.

24. A method according to Claim 1 wherein the temperature controlling step (c) includes lowering the temperature below the set point temperature.

25. A method according to Claim 1 wherein the temperature controlling step (c) includes raising the temperature from an initial temperature below the set point temperature.

26. A method according to Claim 9 wherein the temperature controlling step (c) includes raising the temperature at a predetermined rate.

27. A method according to Claim 9 wherein the temperature controlling step (c) includes maintaining the temperature at a stable temperature below the set point temperature.

28. A method according to Claim 11 wherein the stable temperature is normothermia.

29. A method according to Claim 1 wherein the temperature controlling step (c) includes placing a heat exchanger into the patient's vasculature and using the heat exchanger to cool the patient's blood, thereby resulting in cooling of all or a portion of the patient's body.

30. A method according to Claim 13 wherein the heat exchanger comprises a catheter that has a heat exchange region.

31. A method according to Claim 30 wherein the heat exchange region of the catheter comprises a balloon through which heat exchange fluid is circulated.